

U.S. Patent Application Serial No. 10/646,922
Amendment filed February 8, 2006
Reply to OA dated November 10, 2005

REMARKS

Claims 1-7 are pending in this application.

Claims 5-7 are new.

Original claims 1 and 2 have been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. The support for the claim amendments and the new claims is as follows:

- Claim 1 is based on p.6, lines 12-16 (main body and closure); p.6, lines 2-4, Fig.2 (main display); p.6, lines 16-19, Fig.1 (subdisplay); p.3, lines 1-3, Fig.4, Fig.3 (frame, main display, subdisplay); p.3, lines 7-8 (chip mount areas); p.3, lines 9-10 (electronic circuit chips); p3, lines 3-10 (staggered meshing relationship)
- Claim 2 is based on p.2, lines 23-24, p.3, lines 1-3 (main body, closure, main display, subdisplay, frame); p.3, lines 3-5 (chip mount areas of flexible leads extending from main display and subdisplay); p.6, lines 12-16 (main body and closure); p.6, lines 2-4, Fig.2 (main display); p.6, lines 16-19, Fig.1 (subdisplay); p.3, lines 1-3, Fig.4, Fig.3 (frame, main display, subdisplay); p.3, lines 3-10 (chip mount areas, electronic circuit chips, staggered position, flexible leads folded over)
- Claim 5 is based on p.7, lines 16-20; p.4, lines 9-14.
- Claim 6 is based on p.4, lines 9-14.
- Claim 7 is based on p.4, lines 15-20.

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The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated **November 10, 2005**.

Claim 1 is rejected under 35 USC 103(a) as being unpatentable over Antila, et al. (U.S. Patent No. 6,583,770) in view of Clark, et al. (U.S. Patent No. 6,321,070).

Antila discloses an electronic folding device having a two-sided display in which the thickness of the display construction is reduced by using a **component common to both sides** of the display. The Examiner concedes that **Antila** does not disclose displays mounted with flexible leads. **Clark** is cited for the disclosure of a display arrangement for a mobile device that is mounted with a flexible lead and a chip mount area.

The Examiner asserts that **Antila** teaches a chip mount area that is arranged in a staggered relationship to each other, and relies on Figure 2 of **Antila** as support for this position (Office Action, p.2-3). However, contrary to the Examiner's assertion, in Figure 2, which is included in **Antila** as prior art, the two displays Dr', Dr" are **stacked on top of each other without any groups of electronic circuit chips in a staggered and meshed relationship** to each other. In fact, **Antila** discloses that the displays "have the same thickness and they thus **increase** the thickness of the devices when folded against each other," and that "the solution presented in Fig.2 is vertically rather thick." (Column 2, lines 25-27, 48-49).

Contrary to the claimed invention, **Antila** and **Clark** fail to teach a **staggered and meshed**

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arrangement of electronic chips on chip mount areas, as recited in amended claim 1. In the claimed invention, the display assembly is thinner than a conventional display assembly, where two displays are arranged on top of each other without staggering or meshing, by an amount that corresponds to the depth of the staggering and meshing of the circuit chips. As described in Figs. 5 and 6, the present invention comprises groups of electronic circuit chips 43, 54 mounted on opposing surfaces of chip mount areas 42, 53 so that they are **positioned in a staggered and meshed relation** to each other. (Specification, p.3, lines 10). As described in Figs. 8 and 9, when assembled, the groups of electronic circuit chips 43, 54 are **staggered and meshed**. In fact, the staggered and meshed arrangement **decreases** the thickness of the display assembly by an amount corresponding to the overlap in the height of the chips 43 and the chips 54, or the depth of the meshing of the circuit chips. (Specification, p.3, lines 17-21; Fig.9).

In addition, **Antila** fails to teach a display assembly comprising **two displays** arranged back to back, and **two** chip mount areas, each on a flexible lead, being opposed to each other, as recited in amended claim 1. In contrast, **Antila** discloses that:

In the invention the **one and same display component** . . . is utilized in the realization of a first display displaying in a first direction and of a second display displaying in a second opposite direction. . . the invention is characterized in that it comprises a **component common to a first and second display**, the component comprising a display material layer of a certain size, and a first part of said display material layer forms a part of said first display and a second part of said display material layer

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forms a part of said second display.

(Antila, col.2, lines 61-65; col.3, lines 56-61). In other words, **by design, Antila necessarily fails to teach the claimed invention** recited in amended claim 1 which comprises **two displays** 4, 5, and **two chip mount areas** 42, 53, and **two flexible leads** 41, 51. In fact, in the claimed invention, “the component comprising a display material layer” is not “one and same,” and not common to both the main display and the subdisplay. Contrary to the teachings of **Antila**, the present invention achieves a thinness over a conventional display assembly not by using “one and same display component,” but by arranging **opposing groups** of electronic circuit chips in a **staggered and meshed** relationship. (Fig. 5, 6, 8, 9).

Antila and **Clark** fail to render obvious the claimed invention as a whole because the references do not teach a foldable electronic device comprising a **staggered and meshed** arrangement of groups of electronic circuit chips mounted on **oppositely facing** chip mount areas of flexible leads, each chip mount area and flexible lead being **related to separate displays**.

It is respectfully requested that the rejection be favorably reconsidered.

Claims 2-4 are objected to as being dependent upon rejected base Claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In accordance with the Examiner’s helpful suggestion, claim 2 has been rewritten in

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independent form including all of the limitations of original claim 1. Original claims 3 and 4 are dependent on amended claim 2.

It is respectfully requested that the objection be favorably reconsidered.

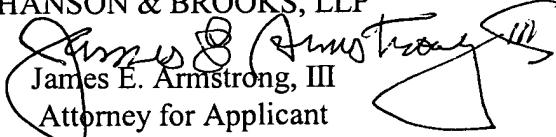
In view of the aforementioned amendments and accompanying remarks, claims 1-4, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP


James E. Armstrong, III
Attorney for Applicant
Reg. No. 18,366

JEA/gia

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Atty. Docket No. **031057**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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Enclosures:

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